

WHAT IS CLAIMED IS:

1. A display sheet having polymer dispersed liquid crystals, comprising:
 - a) a substrate;
 - b) a state changing layer disposed over the substrate and defining first and second surfaces, such state changing layer having the polymer dispersed liquid crystals having first and second optical states, which can change state;
 - c) a first conductor disposed over the first surface of the state changing layer;
 - d) a second conductor on the second surface of the state changing layer so that when a field is applied between the first and second conductors, the liquid crystals change state; and
 - e) a nonconductive, field spreading layer having a transparent electrically conductive polymer dispersed sub-micron particles disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.
2. The display sheet of claim 1 wherein the same polymer is used to disperse the liquid crystals and the sub-micron particles.
3. The display sheet of claim 2 wherein the polymer is gelatin.
4. The display sheet of claim 2 wherein the polymer dispersed liquid crystal layer and the sub-micron particles are sequentially or simultaneously deposited.

5. The display sheet of claim 1 wherein the index of refraction of the first conductor and the field spreading layer are substantially the same.

6. The display sheet of claim 1 wherein the polymer dispersed sub-micron particles include polythiophene.

7. A method of making a display sheet having polymer dispersed liquid crystals comprising the steps of:

- a) providing a substrate;
- b) coating a state changing layer over the substrate having a first and second surface, such state changing layer having the polymer dispersed liquid crystals having first and second optical states;
- c) providing a first transparent conductor disposed over the first surface of the state changing layer and a second conductor on the second surface of the state changing layer so that when a field is applied between the first and second conductors, the liquid crystals change state; and
- d) coating a nonconductive, field spreading layer having polymer dispersed sub-micron particles of a transparent electrically conductive polymer disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.

8. The method of claim 7 wherein the display sheet is in the form of a web that is sequentially moved through one or more stations which sequentially or simultaneously deposits the state changing layer or field spreading layer.

9. The method of claim 7 wherein indium-tin-oxide is sputtered to form the first transparent conductor.

10. The method of claim 7 further including patterning the first and second conductors to produce an addressable matrix.

100
12